

NOTES:

1. ALL SIGNS ARE BLACK ON ORANGE
2. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR			30 FEET MIN TO 100 FEET MAX	
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION				
PROTECTIVE VEHICLE			NO SPECIFIED DISTANCE REQUIRED	
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA				

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	10 to 20	60
25/ 30	10 to 20	40

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

Tricia Juhnke

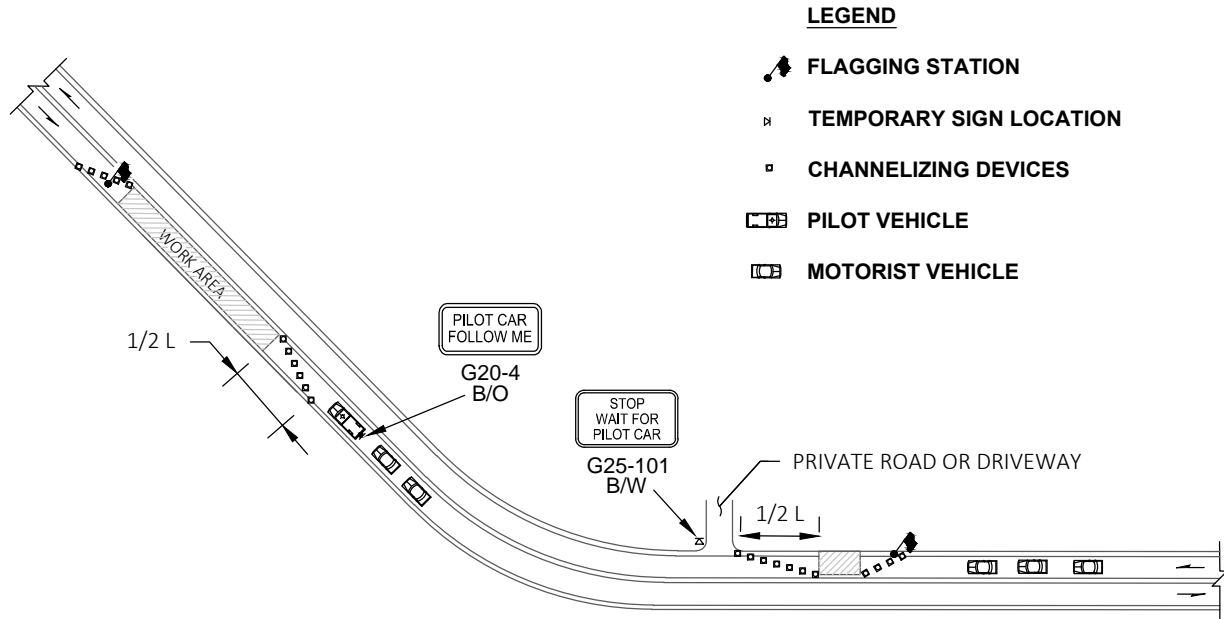
APPROVED BY: TRICIA JUHNKE
CITY ENGINEER



STANDARD DETAIL NUMBER: **901** SCALE: **NOT TO SCALE**

**One-lane, Two-way Traffic Control
With Flaggers**

PUBLICATION DATE: 3/1/19 REVISION DATE: 12/19/18



NOTES:

1. REFER TO SHEET TC1 FOR ADDITIONAL SIGNING AND FLAGGING DETAILS NOT SHOWN.
2. CHANNELIZING DEVICES ARE RECOMMENDED ALONG CENTERLINE TO SEPARATE TRAFFIC FROM WORK OPERATION. DEVICES ARE REQUIRED AT TAPERS TO SHIFT TRAFFIC MOVEMENT BETWEEN LANES AND TO PROTECT ALL FLAGGING STATIONS.
3. SIGN G25-101 IS RECOMMENDED FOR NON-STOP SIGN CONTROLLED APPROACHES SUCH AS PRIVATE ROADS AND DRIVEWAYS. THIS SIGN IS NOT REQUIRED TO BE ALUMINUM SUBSTRATE AND CAN BE MADE OF ALTERNATIVE MATERIALS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	10 to 20	60
25/ 30	10 to 20	40

MINIMUM TAPER LENGTH = L (feet)				
LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

Tricia Juhnke
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CITY ENGINEER



STANDARD DETAIL NUMBER: **902**

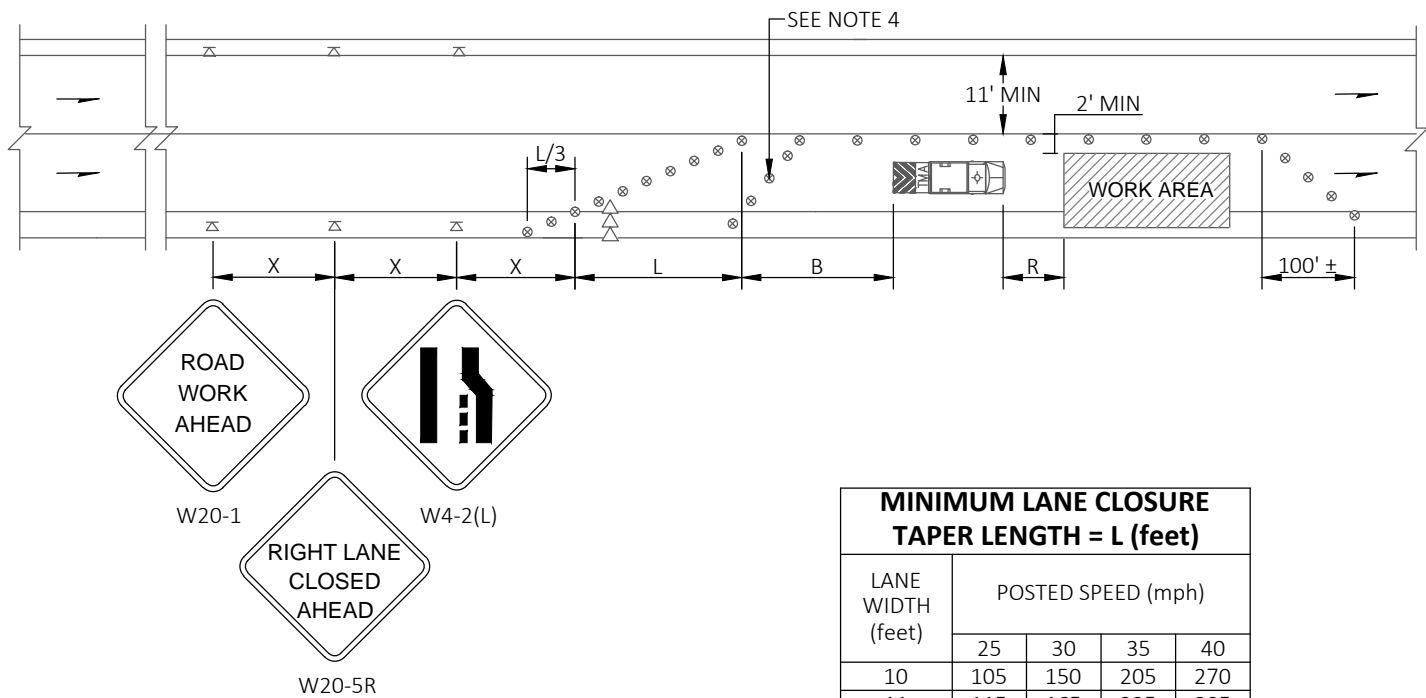
SCALE: **NOT TO SCALE**

Pilot Car Operation

PUBLICATION DATE: 3/1/19

REVISION DATE: 12/19/18

Public Works



MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)				
LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)				
SHOULDER WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
8	40	40	60	90
10	40	60	90	90

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION		30 FEET MIN TO 100 FEET MAX		

NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. EXTEND DEVICE TAPER AT $L/3$ ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
4. USE TRAVERSE DEVICES IN CLOSED LANE EVERY 1000' (RECOMMENDED).
5. DEVICES SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'.
6. ALL SIGNS ARE BLACK ON ORANGE.
7. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
CITY ENGINEER



STANDARD DETAIL NUMBER: 903 SCALE: NOT TO SCALE

Single-lane Closure For Multi-lane Roadways

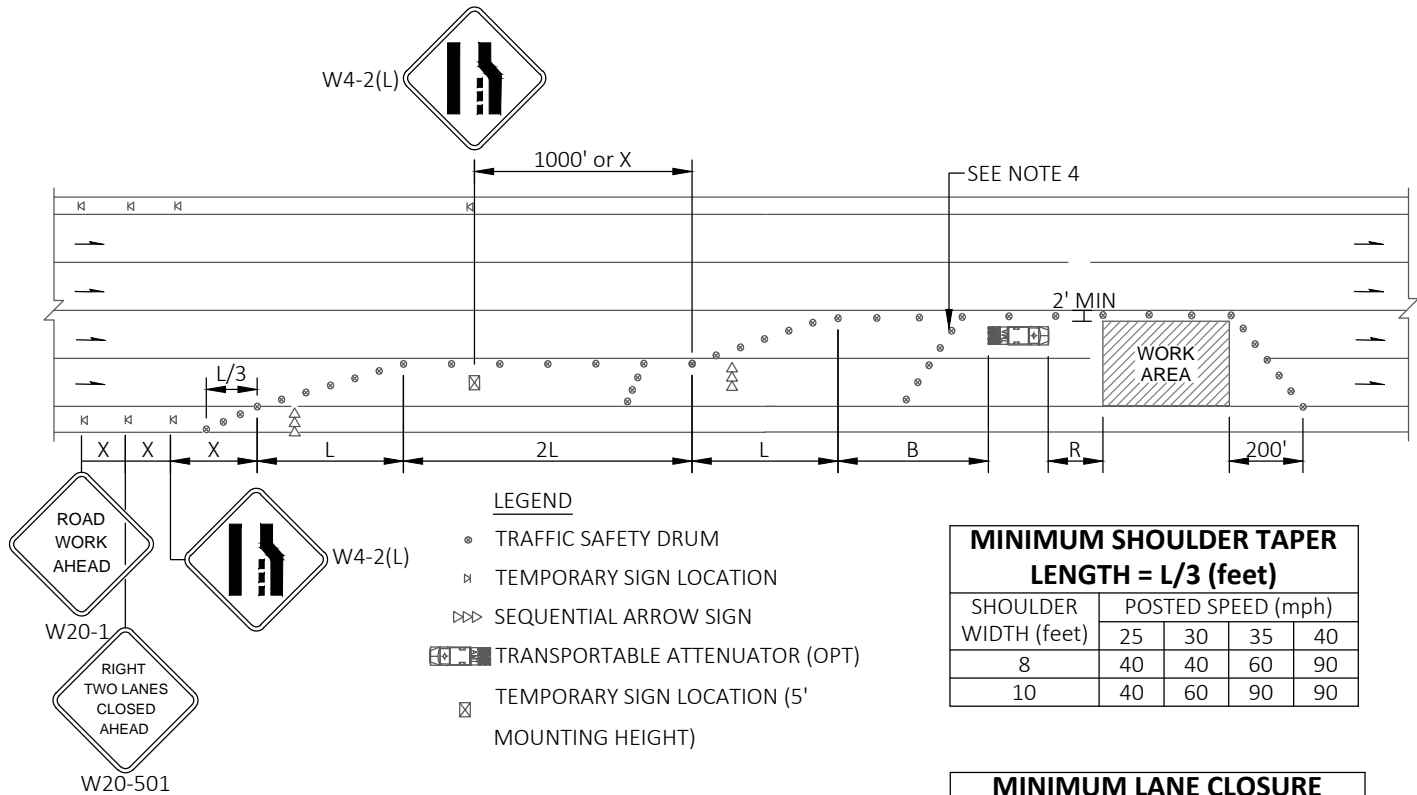
PUBLICATION DATE: 3/1/19 REVISION DATE: 1/2/19

SIGN SPACING = X (1)

RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40



NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
4. USE TRAVERSE DEVICES IN CLOSED LANE EVERY 1000' (RECOMMENDED).
5. DEVICES SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'.
6. ALL SIGNS ARE BLACK ON ORANGE.
7. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR				30 FEET MIN TO 100 FEET MAX
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION				

Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
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STANDARD DETAIL NUMBER: 904

SCALE: NOT TO SCALE

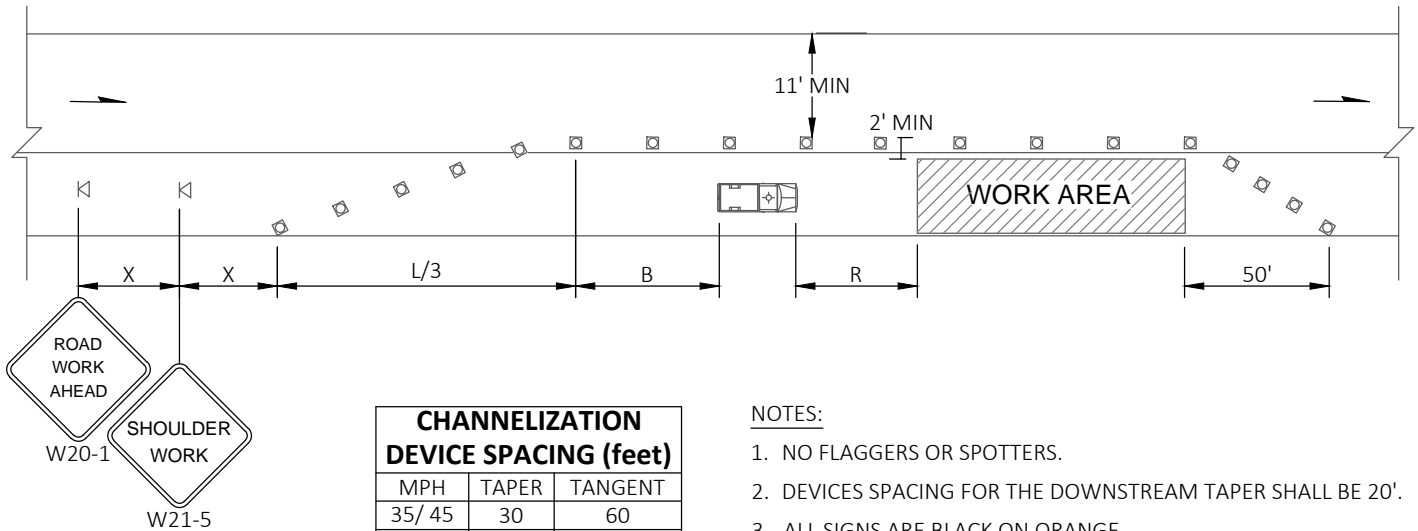
Double-lane Closure For Multi-lane Roadways

PUBLICATION DATE: 3/1/19

REVISION DATE: 1/2/19

SIGN SPACING = X (1)

RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'+
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'+ (2)
URBAN STREETS	25 MPH OR LESS	100'+ (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		



CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. DEVICES SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'.
3. ALL SIGNS ARE BLACK ON ORANGE.

LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

MINIMUM SHOULDER TAPER LENGTH = $L/3$ (feet)

SHOULDER WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
8	40	40	60	90
10	40	60	90	90

BUFFER DATA

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
PROTECTIVE VEHICLE			NO SPECIFIED DISTANCE REQUIRED	
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA				

Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
CITY ENGINEER



STANDARD DETAIL NUMBER: 905

SCALE: NOT TO SCALE

**Shoulder Closure - Low Speed (40
Mph Or Less)**

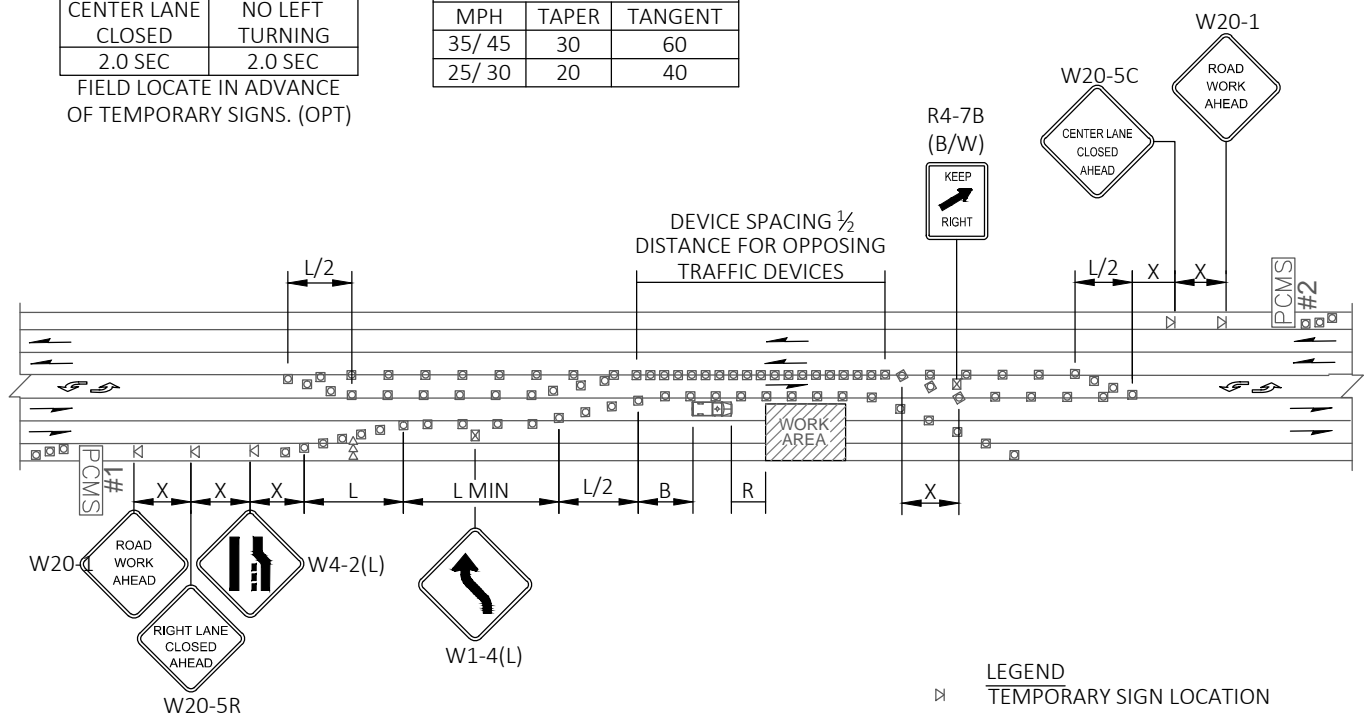
PUBLICATION DATE: 3/1/19

REVISION DATE: 1/4/19

PCMS	
1	2
CENTER LANE CLOSED	NO LEFT TURNING
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE
OF TEMPORARY SIGNS. (OPT)

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40



NOTES:

1. NO FLAGGER'S OR SPOTTERS.
2. RECOMMEND EXTENDING DEVICE TAPER ($L/3$) ACROSS SHOULDER.
3. FOR POSTED SPEED LIMITS OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
5. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- ◇ CHANNELIZING DEVICES
- ⏏ SEQUENTIAL ARROW SIGN
- ⚡ PROTECTIVE VEHICLE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

SIGN SPACING = X (1)

RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'+
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'+ (2)
URBAN STREETS	25 MPH OR LESS	100'+ (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.

(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)

LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
PROTECTIVE VEHICLE - MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA			NO SPECIFIED DISTANCE REQUIRED	
TRANSPORTATION ATTENUATOR - MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.			30 FEET MIN - 100 FEET MAX	

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CITY ENGINEER



STANDARD DETAIL NUMBER: 906 SCALE: NOT TO SCALE

**Right Lane Closure With Shift - 5
Lane Roadway**

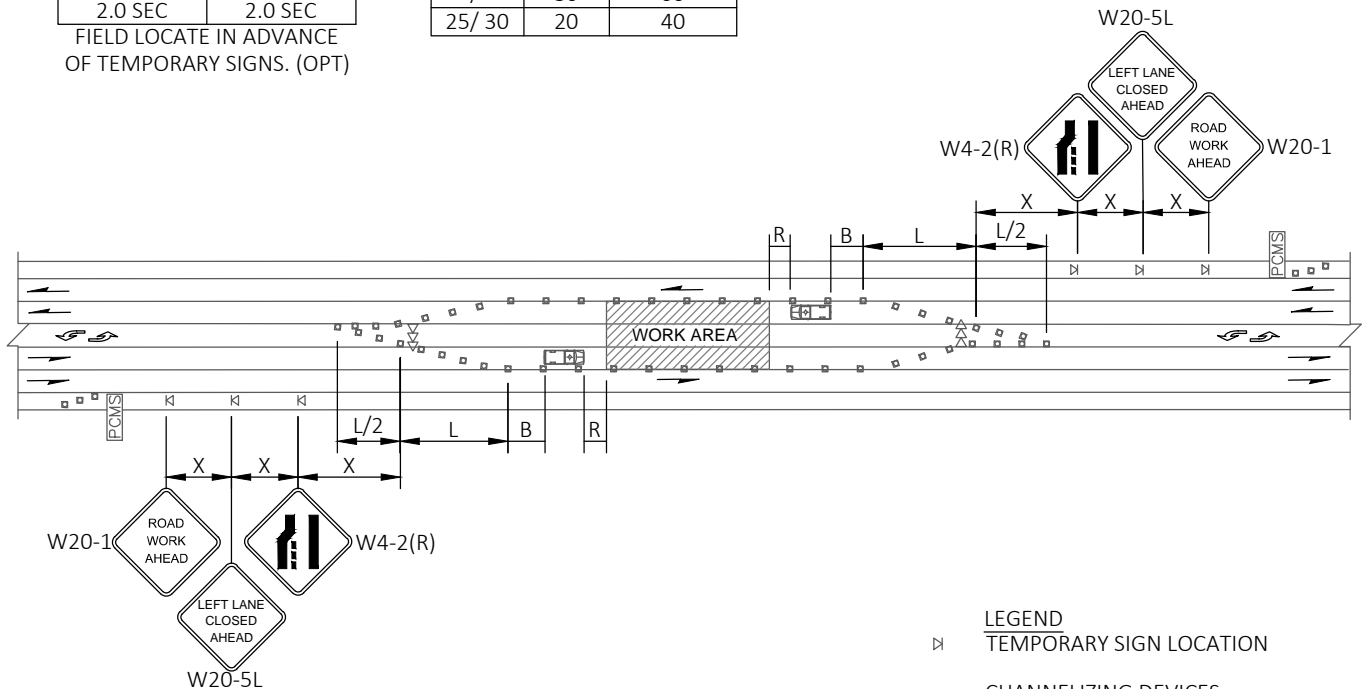
PUBLICATION DATE: 3/1/19

REVISION DATE: 1/4/19

PCMS	
1	2
CENTER LANE CLOSED	NO LEFT TURNING
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE
OF TEMPORARY SIGNS. (OPT)

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40



- LEGEND**
- ✕ TEMPORARY SIGN LOCATION
 - ◆ CHANNELIZING DEVICES
 - ➡➡ SEQUENTIAL ARROW SIGN
 - 🚚 PROTECTIVE VEHICLE
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. NO FLAGGER'S OR SPOTTERS.
2. ALL SIGNS ARE BLACK ON ORANGE.
3. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'+
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'+ (2)
URBAN STREETS	25 MPH OR LESS	100'+ (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)				
LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
PROTECTIVE VEHICLE - MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA			NO SPECIFIED DISTANCE REQUIRED	
TRANSPORTATION ATTENUATOR - MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.			30 FEET MIN - 100 FEET MAX	

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CITY ENGINEER



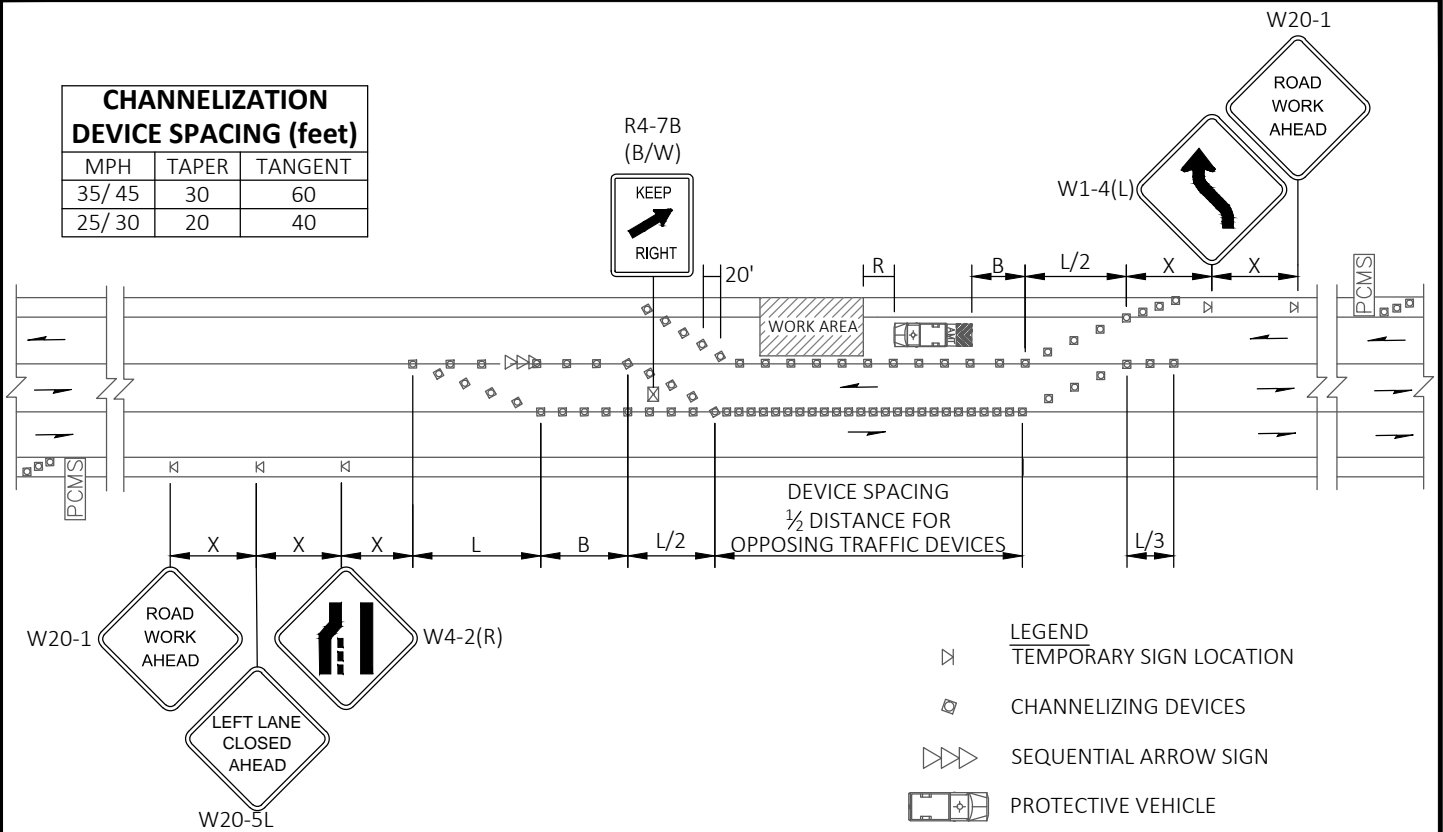
STANDARD DETAIL NUMBER: **907** SCALE: **NOT TO SCALE**

**Left Lane And Center Turn Lane
Closure - 5 Lane Roadway**

PUBLICATION DATE: 3/1/19 REVISION DATE: 1/4/19

CHANNELIZATION DEVICE SPACING (feet)

MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40



LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- SEQUENTIAL ARROW SIGN
- PROTECTIVE VEHICLE
- PORTABLE CHANGEABLE MESSAGE SIGN
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. FOR SPEED LIMITS OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
3. RECOMMENDED EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
5. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

SIGN SPACING = X (1)

RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'+
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'+ (2)
URBAN STREETS	25 MPH OR LESS	100'+ (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.

(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)

LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305

BUFFER VEHICLE ROLL AHEAD DISTANCE = R

PROTECTIVE VEHICLE - MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA

NO SPECIFIED DISTANCE REQUIRED

TRANSPORTATION ATTENUATOR - MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.

30 FEET MIN - 100 FEET MAX

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CITY ENGINEER



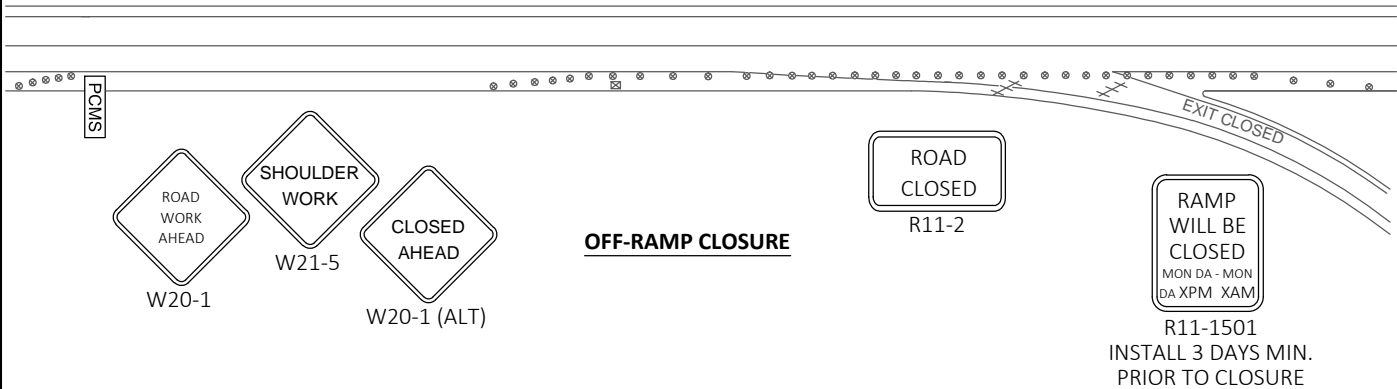
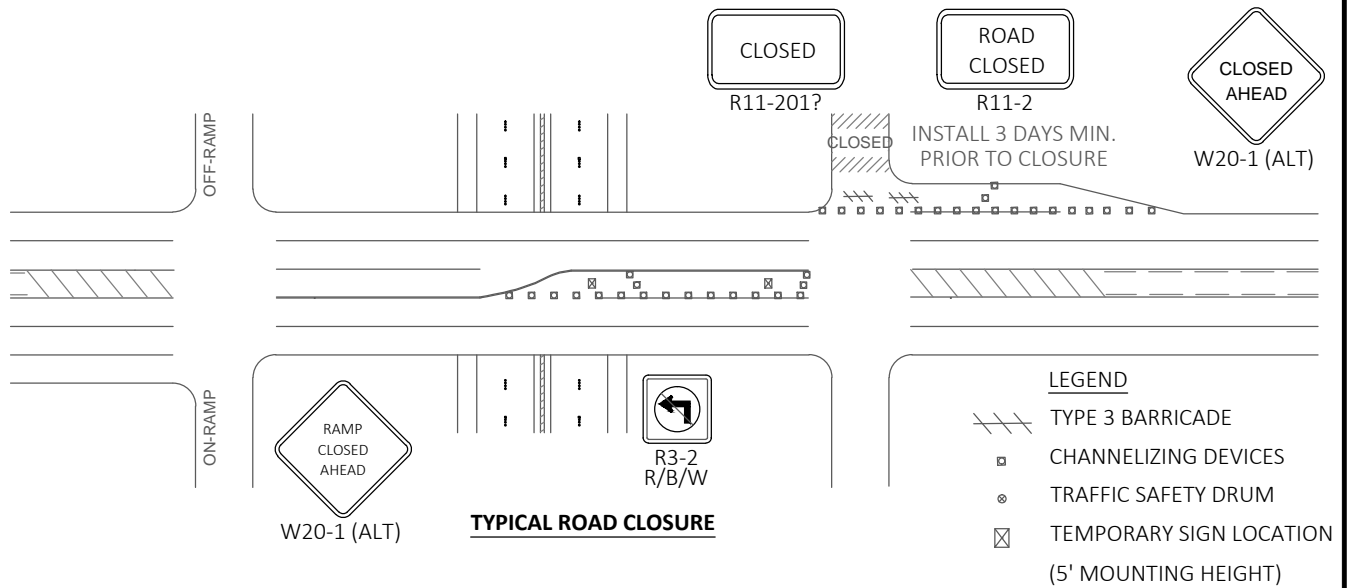
STANDARD DETAIL NUMBER: **908**

SCALE: **NOT TO SCALE**

Lane Shift - Three Lane Roadway

PUBLICATION DATE: 3/1/19

REVISION DATE: 1/4/19



NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. TYPICAL APPLICATION SHOWN, ADJUST FOR SITE CONDITIONS.
3. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
4. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)				
SHOULDER WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
8	40	40	60	90
10	40	60	90	90

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'+
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'+ (2)
URBAN STREETS	25 MPH OR LESS	100'+ (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
CITY ENGINEER



STANDARD DETAIL NUMBER: 909 SCALE: NOT TO SCALE

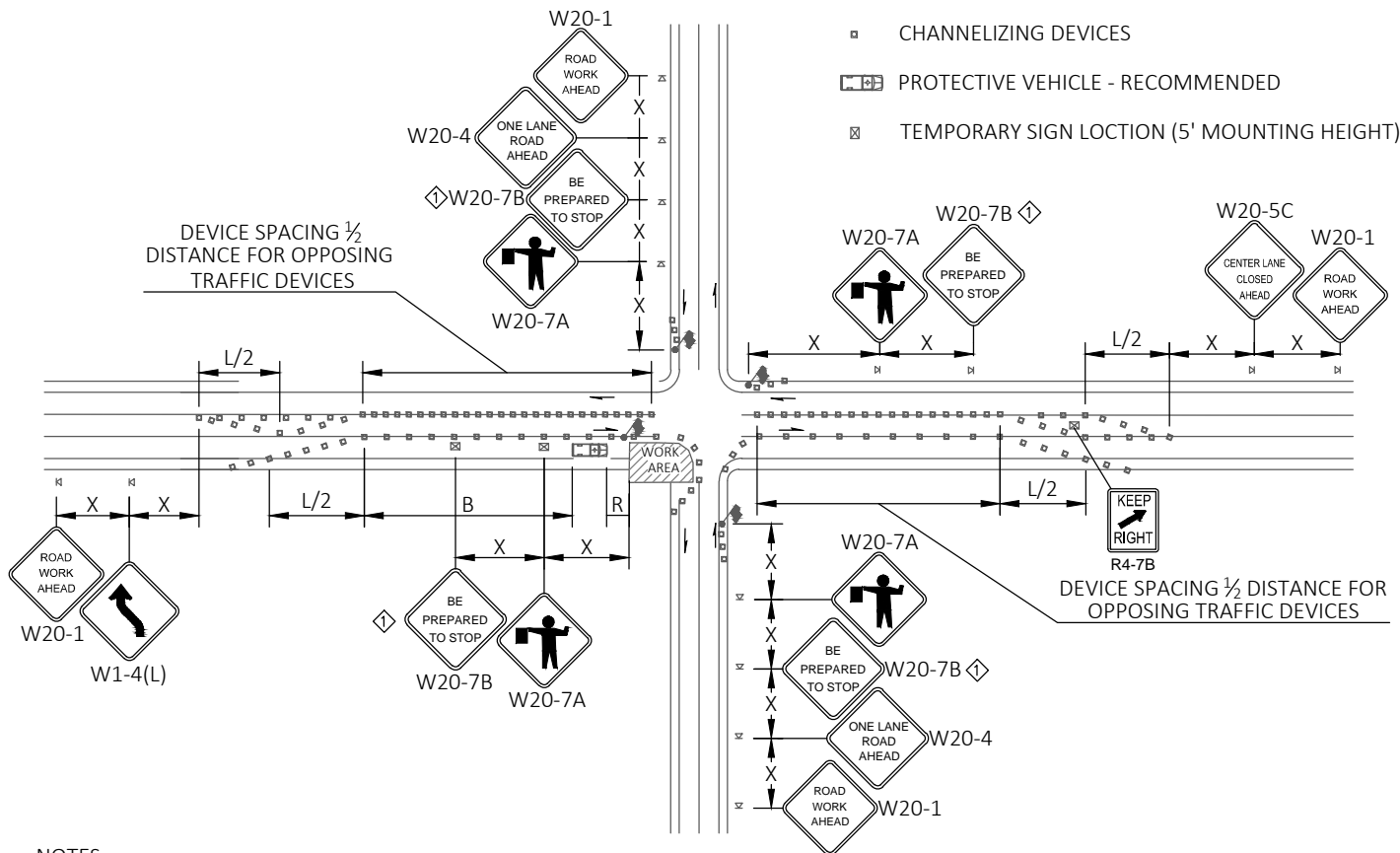
Short Term Ramp Closures

PUBLICATION DATE: 3/1/19

REVISION DATE: 1/4/19

◊ W20-7B IS OPTIONAL IF 40 MPH OR LESS

- LEGEND**
- FLAGGING STATION
 - TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - PROTECTIVE VEHICLE - RECOMMENDED
 - TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)



NOTES:

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. LAW ENFORCEMENT OFFICER MAY BE USED IN LIEU OF FLAGGERS TO CONTROL INTERSECTION TRAFFIC. REQUIRED AT SIGNAL.
4. FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
5. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
6. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED. MIN LANE WIDTH = 11'.

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
PROTECTIVE VEHICLE - MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA			NO SPECIFIED DISTANCE REQUIRED	
TRANSPORTATION ATTENUATOR - MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.			30 FEET MIN - 100 FEET MAX	

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

STANDARD DETAIL NUMBER: **910** SCALE: **NOT TO SCALE**

Intersection Lane Closure - Three Lane Roadway

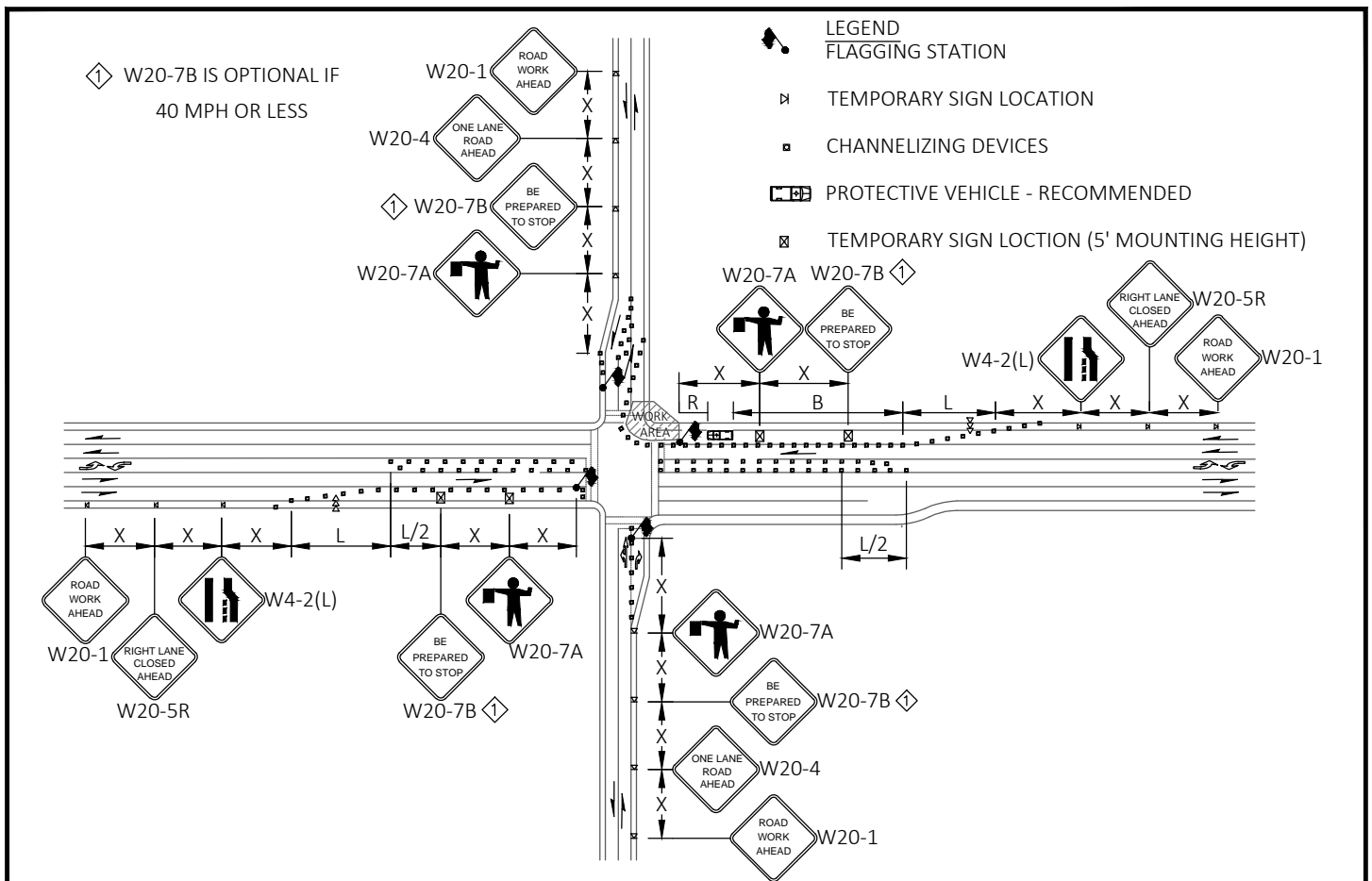
Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
CITY ENGINEER



PUBLICATION DATE: 3/1/19

REVISION DATE: 1/4/19



NOTES:

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. LAW ENFORCEMENT OFFICER MAY BE USED IN LIEU OF FLAGGERS TO CONTROL INTERSECTION TRAFFIC. REQUIRED AT SIGNAL.
4. AT SIGNALIZED INTERSECTIONS A MINIMUM OF 2 LAW ENFORCEMENT OFFICERS ARE REQUIRED TO CONTROL THE INTERSECTION.
5. FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
6. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
7. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED. MIN LANE WIDTH = 11'.

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
PROTECTIVE VEHICLE - MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA			NO SPECIFIED DISTANCE REQUIRED	
TRANSPORTATION ATTENUATOR - MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.			30 FEET MIN - 100 FEET MAX	

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40



R8-3
R/W

INSTALL ON TYPE 2 BARRICADES
THROUGHOUT THE WORK AREA
24 HOURS PRIOR TO IMPLEMENTING
TRAFFIC CONTROL.
PRIOR NOTIFICATION OF LOCAL LAW
ENFORCEMENT REQUIRED.

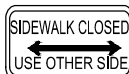
LEGEND

• TEMPORARY SIGN LOCATION

• CHANNELIZING DEVICES

▨ PEDESTRIAN CHANNELIZING DEVICES

■ TEMPORARY PEDESTRIAN RAMP FOR
SIDEWALKS



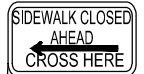
R9-10
B/W



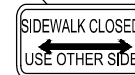
R9-11
B/W



R9-9
B/W



R9-11
B/W



R9-10
B/W

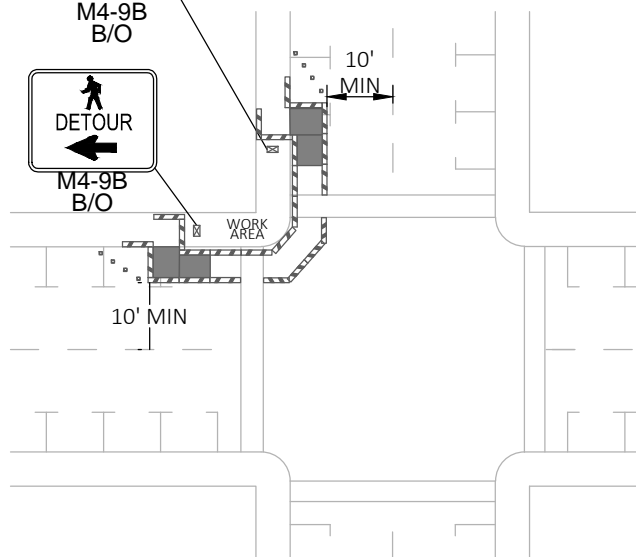
SIDEWALK DETOUR



M4-9B
B/O



M4-9B
B/O



SIDEWALK DIVERSION

NOTES:

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PEDESTRIAN PATH WIDTH SHOULD BE MAINTAINED (48" IS THE MINIMUM).
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED, SEE STANDARD SPECIFICATION 1-10.2(1)B.
6. TEMPORARY PEDESTRIAN PUSH BUTTONS SHALL BE PLACED ON THE DIVERTED PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.

Tricia Juhnke

APPROVED BY: TRICIA JUHNKE
CITY ENGINEER

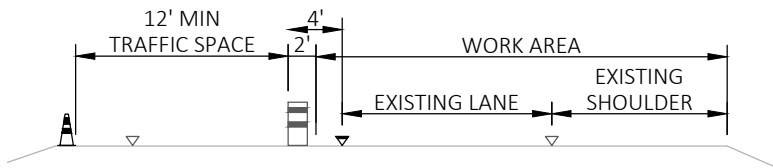


STANDARD DETAIL NUMBER: **912** SCALE: **NOT TO SCALE**

Intersection Pedestrian Traffic Control

PUBLICATION DATE: 3/1/19

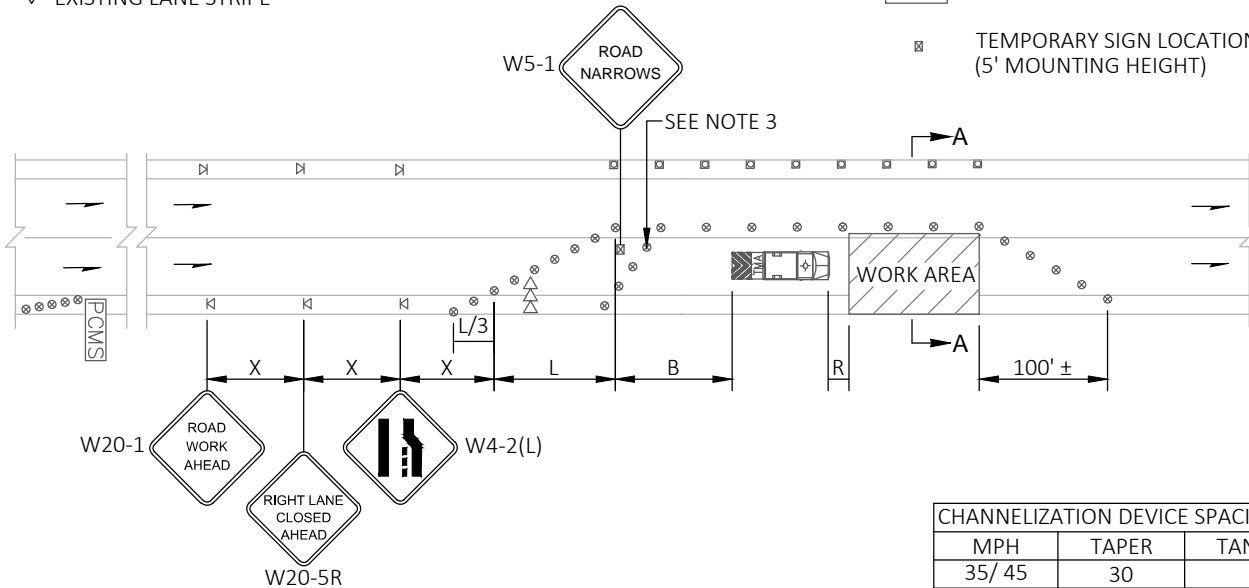
REVISION DATE: 1/7/19



TYPICAL SECTION A-A

- CHANNELIZING DEVICE
- EXISTING EDGE STRIPE
- EXISTING LANE STRIPE

- LEGEND**
- TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - TRAFFIC SAFETY DRUM
 - SEQUENTIAL ARROW SIGN
 - TRANSPORTABLE ATTENUATOR
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)



CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

NOTES:

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PEDESTRIAN PATH WIDTH SHOULD BE MAINTAINED (48" IS THE MINIMUM).
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED, SEE STANDARD SPECIFICATION 1-10.2(1)B.
6. TEMPORARY PEDESTRIAN PUSH BUTTONS SHALL BE PLACED ON THE DIVERTED PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.

**MINIMUM LANE CLOSURE
TAPER LENGTH = L (feet)**

LANE WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

**MINIMUM SHOULDER TAPER
LENGTH = L/3 (feet)**

SHOULDER WIDTH (feet)	POSTED SPEED (mph)			
	25	30	35	40
8	40	40	60	90
10	40	60	90	90

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR		30 FEET MIN TO 100 FEET MAX		
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION				

SIGN SPACING = X (1)

RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

Tricia Juhnke

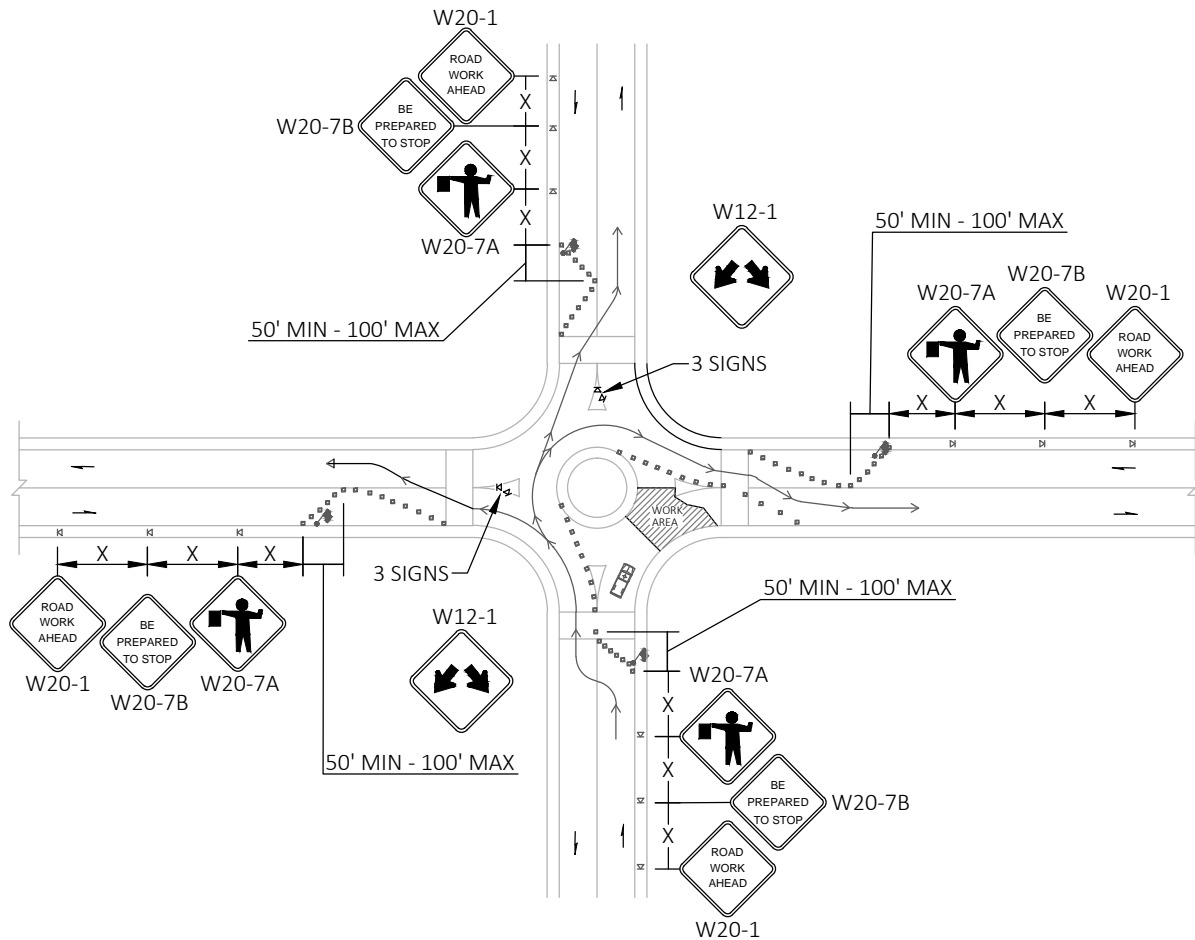
APPROVED BY: TRICIA JUHNKE
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STANDARD DETAIL NUMBER: **913** SCALE: **NOT TO SCALE**

Single-lane Closure With Shift

PUBLICATION DATE: 3/1/19 REVISION DATE: 1/7/19



NOTES:

1. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING
AT FLAGGING STATIONS, SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
2. PROTECTIVE VEHICLE RECOMMENDED - MAY BE A WORK VEHICLE.
3. TYPICAL APPLICATION SHOWN, ADJUST FOR SITE CONDITIONS.

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE - RECOMMENDED

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/ 45	30	60
25/ 30	20	40

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/ 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25/ 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

Tricia Juhnke

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STANDARD DETAIL NUMBER: **914** SCALE: **NOT TO SCALE**

**Typical Roundabout Flagging
Operation**

PUBLICATION DATE: 3/1/19

REVISION DATE: 1/7/19